

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
CHARLESTON DIVISION**

JOSE L. ROSALES,

Plaintiff(s)

v.

SYNGENTA CROP PROTECTION LLC,
SYNGENTA AG, and CHEVRON U.S.A.,
INC.,

Defendant(s)

Case No. 2:21-cv-01888-MDL

**COMPLAINT
(Jury Trial Demanded)**

Plaintiff, JOSE L. ROSALES, complaining of the Defendants SYNGENTA CROP PROTECTION LLC, SYNGENTA AG, and CHEVRON U.S.A., INC., alleges and says as follows:

SUMMARY OF THE CASE

1. Paraquat is a synthetic chemical compound¹ that since the mid-1960s has been developed, registered, manufactured, distributed, sold for use, and used as an active ingredient in herbicide products (“paraquat products”) developed, registered, formulated, distributed, and sold for use in the United States (“U.S.”), including the state of South Carolina.
2. From approximately May 1964 through approximately June 1981, Imperial Chemical Industries Limited (“ICI Limited”) and certain ICI Limited subsidiaries,² and from

¹ Paraquat dichloride (EPA Pesticide Chemical Code 061601) or paraquat methosulfate (EPA Pesticide Chemical Code 061602).

² As used in this Complaint, “subsidiary” means a corporation or other business entity’s wholly-owned subsidiary that is or formerly was engaged in the U.S. paraquat business directly or acting in concert with others.

approximately June 1981 through approximately September 1986, Imperial Chemical Industries PLC (“ICI PLC”) and certain ICI PLC subsidiaries, each of which was a predecessor³ of Defendant SYNGENTA AG (“SAG”) and/or Defendant SYNGENTA CROP PROTECTION LLC (“SCPLLC”), were engaged, directly, acting in concert with each other, and/or acting in concert with Chevron Chemical Company, previously known as California Chemical Company (“CHEVRON”), in the business of developing, registering, manufacturing, distributing, and selling paraquat for use as an active ingredient in paraquat products, and developing, registering, formulating, and distributing paraquat products, for sale and use in the U.S., including South Carolina (“the U.S. paraquat business”).

3. From approximately May 1964 through approximately September 1986, CHEVRON, a predecessor of Defendant CHEVRON U.S.A., INC. (“CUSA”), was engaged, directly and/or acting in concert with ICI,⁴ in all aspects of the U.S. paraquat business.

4. From approximately September 1986 through the present, ICI PLC and certain ICI PLC subsidiaries (including predecessors of SCPLLC) initially, then other SAG predecessors and certain subsidiaries of each (including predecessors of SCPLLC), and most recently SAG and certain SAG subsidiaries (including SCPLLC), have manufactured paraquat (“ICI-SYNGENTA paraquat”) for their own use, and for use by others to which they distributed it, as an active

³ As used in this Complaint, “predecessor” means a corporation or other business entity or subsidiary thereof, to which a Defendant is a successor by merger, continuation of business, or assumption of liabilities, that formerly was engaged in the U.S. paraquat business directly or acting in concert with others.

⁴ As used in this Complaint, “ICI” means ICI Limited and various ICI Limited subsidiaries through approximately June 1981 and ICI PLC and various ICI PLC subsidiaries thereafter.

ingredient in paraquat products that SCPLLC and its predecessors and others have distributed for sale and use in the U.S., including South Carolina (“ICI-SYNGENTA paraquat products”).

5. Plaintiff brings this suit against Defendants to recover damages for personal injuries resulting from exposure to Defendants’ product(s) including, but not limited to, as a professional groundskeeper.

NATURE OF THE CASE

6. Defendants each knew, or should have known, of the hazardous nature of paraquat both at the time of the sale and when Plaintiff Jose L. Rosales was exposed to the product.

Notwithstanding, Defendants failed to warn of the defective nature of paraquat and failed to give instructions on safe use of paraquat.

PARTIES

7. Plaintiff Jose L. Rosales is a resident and citizen of the State of South Carolina who suffers from Parkinson’s Disease (“Parkinson’s”).

8. Defendant Chevron is a Pennsylvania corporation with its principal place of business in San Ramon, California.

9. Defendant Syngenta Crop Protection is a Delaware limited liability company with its principal place of business in Greensboro, North Carolina.

10. Defendant Syngenta AG is a foreign corporation with its principal place of business in Basel, Switzerland.

JURISDICTION AND VENUE

11. This Court has subject-matter jurisdiction over this action under 28 U.S.C. § 1332 because there is complete diversity of the plaintiff and the defendants and the matter in controversy exceeds the sum or value of \$75,000, exclusive of interest and costs.

12. This Court has personal jurisdiction over Defendants because Defendants conduct business in South Carolina and have sufficient minimum contacts with South Carolina.

13. Venue is proper in this district under 28 U.S.C. §1391 because Defendants' conduct business in this District, are subject to jurisdiction in this district, and have sold, marketed, and or distributed paraquat within this District at all times relevant to this suit, because a substantial part of the acts or occurrences giving rise to this suit occurred within this District.

ALLEGATIONS COMMON TO ALL CAUSES OF ACTION

A. Defendants and their predecessors

1. Syngenta Crop Protection LLC and Syngenta AG

14. SAG is the SAG is the successor in interest to the crop-protection business of each of its predecessors, AstraZeneca PLC ("AstraZeneca"), Zeneca Group PLC ("Zeneca Group"), ICI PLC, ICI Limited, and Plant Protection Limited ("PP Limited") and their respective crop-protection subsidiaries (collectively, "SAG's predecessors"), in that:

- a. SAG, and each of SAG's predecessors, was the result of a corporate name change by, de facto consolidation or merger of, or mere continuation of, its immediate predecessor(s); and/or
- b. SAG has expressly or impliedly agreed to assume any liability on claims arising from the historical operation of the crop-protection business of each of SAG's predecessors.

15. SCPLLC is the successor in interest to the crop-protection business of each of its predecessors, Syngenta Crop Protection, Inc. ("SCPI"), Zeneca Ag Products, Inc. ("Zeneca Ag"), Zeneca, Inc. ("Zeneca"), ICI Americas, Inc. ("ICIA"), ICI United States, Inc. ("ICI US"), and ICI America Inc. ("ICI America") (collectively, "SCPLLC's predecessors"), in that:

- a. SCPLLC, and each of SCPLLC's predecessors, was the result of a corporate name change by, de facto consolidation or merger of, or mere continuation of, its immediate predecessor(s); and/or

- b. SCPLLC has expressly or impliedly agreed to assume any liability on claims arising from the historical operation of the crop-protection business of each of SCPLLC's predecessors.

16. At all relevant times, SCPLLC, SCPI, Zeneca Ag, Zeneca, ICIA, ICI US, and/or ICI America was a wholly-owned U.S. crop-protection subsidiary of SAG or a predecessor of SAG.

17. At all relevant times, PP Limited was a wholly-owned U.K. crop- protection subsidiary of ICI Limited, an unincorporated division of ICI Limited, or an unincorporated division of ICI PLC.

18. At all relevant times, SAG and its predecessors exercised a degree of control over their crop-protection subsidiaries so unusually high that these subsidiaries were their agents or alter egos.

2. Chevron U.S.A., Inc.

19. Chevron Chemical Company was a corporation organized in 1928 under the laws of the state of Delaware.

20. In 1977, Chevron Chemical Company was merged into Chevron Chemical Company LLC, a limited liability company organized under the laws of the state of Delaware.

21. In the mid-2000s, Chevron Chemical Company LLC was merged into or continued to operate under the same or similar ownership and management as Chevron Phillips Chemical Company LP.

22. Chevron Phillips Chemical Company LP is a successor in interest to the crop-protection business of its corporate predecessor Chevron Chemical Company LLC.

23. Chevron Phillips Chemical Company LP is a successor by merger or continuation of business to its corporate predecessor Chevron Chemical Company LLC.

24. Defendant CUSA is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business in the State of California.
25. Defendant CUSA is a successor in interest to the crop-protection business of its corporate predecessor Chevron Chemical Company LLC.
26. Defendant CUSA is a successor in interest to the crop-protection business of its corporate predecessor Chevron Phillips Chemical Company LP.
27. In the mid-2000s, CUSA entered into an agreement in which it expressly assumed the liabilities of Chevron Phillips Chemical Company LP and Chevron Chemical Company LLC arising from Chevron Chemical's then-discontinued agrichemical business, which included the design, registration, manufacture, formulation, packaging, labeling, distribution, marketing, and sale of paraquat products in the United States as alleged in this Complaint.

B. Defendants' and their predecessors' involvement in the U.S. paraquat business

28. ICI Limited discovered the herbicidal properties of paraquat in the mid- 1950s; developed herbicide formulations containing paraquat as an active ingredient in the early 1960s; and produced the first commercial paraquat formulation, which it registered in England and introduced in certain markets under the brand name GRAMOXONE®, in 1962.
29. ICI Limited was awarded a U.S. patent on herbicide formulations containing paraquat as an active ingredient in 1962.
30. In May 1964, ICI Limited, PP Limited, and CHEVRON entered into an agreement for the distribution of paraquat in the U.S. and the licensing of certain paraquat-related patents, trade secrets, and other intellectual property ("paraquat licensing and distribution agreement").
31. As a result of the May 1964 paraquat licensing and distribution agreement, paraquat became commercially available for use in the U.S. in or about 1965.

32. In April 1975, ICI Limited, ICI US, and CHEVRON entered into a new paraquat licensing and distribution agreement that superseded the May 1964 agreement.
33. In November 1981, ICIA, CHEVRON, and ICI PLC entered into a new paraquat licensing and distribution agreement, effective January 1982, which superseded in part and amended in part the April 1975 agreement.
34. From approximately May 1964 through approximately September 1986, pursuant to these paraquat licensing and distribution agreements, ICI and CHEVRON acted in concert in all aspects of the U.S. paraquat business.
35. In September 1986, ICI and CHEVRON entered into an agreement terminating their paraquat licensing and distribution agreement.
36. Under the September 1986 termination agreement, ICI paid CHEVRON for the early termination of CHEVRON's rights under their paraquat licensing and distribution agreement.
37. Although the September 1986 termination agreement gave ICI the right to buy, or exchange for ICI-labeled paraquat products, CHEVRON-labeled paraquat products that CHEVRON had already sold to its distributors, CHEVRON-labeled paraquat products continued to be sold for use in the U.S. after this agreement for some period of time unknown to Plaintiff.
38. SAG, SAG's predecessors, and subsidiaries of SAG and its predecessors (collectively, "SYNGENTA"), have at all relevant times manufactured more paraquat used as an active ingredient in paraquat products formulated and distributed for sale and use in the U.S., including South Carolina, than all other paraquat manufacturers combined.
39. From the mid-1960s through at least 1986, SYNGENTA (as ICI) was the only manufacturer of paraquat used as an active ingredient in paraquat products formulated and distributed for sale and use in the U.S., including South Carolina.

40. From approximately September 1986 through the present, SYNGENTA has:
- a. manufactured paraquat for use as an active ingredient in paraquat products formulated and distributed for sale and use in the U.S., including South Carolina;
 - b. distributed paraquat for use as an active ingredient in paraquat products formulated and distributed for sale and use in the U.S., including South Carolina;
 - c. formulated paraquat products distributed for sale and use in the U.S., including South Carolina; and
 - d. distributed paraquat products for sale and use in the U.S., including South Carolina.

C. The use of paraquat products and Defendants' knowledge thereof

41. Defendants' paraquat products have been used in the U.S. to kill broadleaf weeds and grasses before the planting or emergence of more than 100 field, fruit, vegetable, and plantation crops, to control weeds in orchards, and to desiccate (dry) plants before harvest. At all relevant times, the use of Defendants' paraquat products for these purposes was intended or directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON.

42. Defendants' paraquat products were commonly used multiple times per year on the same ground, particularly when used to control weeds in orchards and in farm fields where multiple crops are planted in the same growing season or year. At all relevant times, the use of Defendants' paraquat products in this manner was intended or directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON.

43. Defendants' paraquat products were typically sold to end users in the form of liquid concentrates that were then diluted with water in the tank of a sprayer and applied by spraying the diluted product onto target weeds. At all relevant times, the use of Defendants' paraquat

products in this manner was intended or directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON.

44. Defendants' paraquat products were typically formulated with a surfactant or surfactants, and/or a surfactant, surfactant product, or "crop oil," which typically contains one or more surfactants, was commonly added by users of Defendants' products, to increase the ability of paraquat to stay in contact with and penetrate the leaves of target plants and enter plant cells. At all relevant times, the use of Defendants' paraquat products as so formulated and/or with such substances added was intended or directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON.

45. Knapsack sprayers, hand-held sprayers, aircraft (*i.e.*, crop dusters), trucks with attached pressurized tanks, and tractor-drawn pressurized tanks, were commonly used to apply Defendants' paraquat products. At all relevant times, the use of such equipment for that purpose was intended or directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON.

D. Exposure to paraquat and Defendants' knowledge thereof

46. When Defendants' paraquat products were used in a manner that was intended and directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON, persons who used them and others nearby were commonly exposed to paraquat while it was being mixed and loaded into the tanks of sprayers, including as a result of spills, splashes, and leaks. At all relevant times, it was reasonably foreseeable to, and known to or foreseen by, SYNGENTA and CHEVRON that such exposure commonly would and did occur and would and did create a substantial risk of harm to the persons exposed.

47. When Defendants' paraquat products were used in a manner that was intended and directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON, persons who sprayed them, and others nearby while they were being sprayed or when they recently had been sprayed, commonly were exposed to paraquat, including as a result of spray drift, the movement of herbicide spray droplets from the target area to an area where herbicide application was not intended, typically by wind, and contact with sprayed plants. At all relevant times, it was reasonably foreseeable to, and known to or foreseen by, SYNGENTA and CHEVRON, that such exposure commonly would and did occur and would and did create a substantial risk of harm to the persons exposed.

48. When Defendants' paraquat products were used in a manner that was intended and directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON, persons who used them and other persons nearby commonly were exposed to paraquat, including as a result of spills, splashes, and leaks, while equipment used to spray it was being emptied or cleaned or clogged spray nozzles, lines, or valves were being cleared. At all relevant times, it was reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON that such exposure commonly would and did occur and would and did create a substantial risk of harm to the persons exposed.

49. At all relevant times, it was reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON that when Defendants' paraquat products were used in a manner that was intended and directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON, and people were exposed to paraquat as a result, paraquat could and did enter the human body via absorption through or penetration of the skin, mucous membranes, and other epithelial tissues, including tissues of the mouth, nose and nasal passages,

trachea, and conducting airways, particularly where cuts, abrasions, rashes, sores, or other tissue damage was present, and that paraquat that entered the human body in one or more of these ways would and did create a substantial risk of harm to people so exposed.

50. At all relevant times, it was reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON that when Defendants' paraquat products were used in a manner that was intended and directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON, and people were exposed to paraquat as a result, paraquat could and did enter the human body via respiration into the lungs, including the deep parts of the lungs where respiration (gas exchange) occurs, and that paraquat that entered the human body in this way would and did create a substantial risk of harm to people so exposed.

51. At all relevant times, it was reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON that when Defendants' paraquat products were used in a manner that was intended and directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON, and people were exposed to paraquat as a result, paraquat could and did enter the human body via ingestion into the digestive tract of small droplets swallowed after entering the mouth, nose, or conducting airways, and that paraquat that entered the human body in this way would and did create a substantial risk of harm to people so exposed.

52. At all relevant times, it was reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON that when Defendants' paraquat products were used in a manner that was intended and directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON, and people were exposed to paraquat as a result, paraquat that entered the human body via ingestion into the digestive tract could and did enter the enteric nervous system (the part of the nervous system that governs the function of the gastrointestinal

tract), and that paraquat that entered the enteric nervous system would and did create a substantial risk of harm to people so exposed.

53. At all relevant times, it was reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON that when Defendants' paraquat products were used in a manner that was intended and directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON, and people were exposed to paraquat as a result, paraquat that entered the human body, whether via absorption, respiration, or ingestion, could and did enter the bloodstream, and that paraquat that entered the bloodstream would and did create a substantial risk of harm to people so exposed.

54. At all relevant times, it was reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON that when Defendants' paraquat products were used in a manner that was intended and directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON, and people were exposed to paraquat as a result, paraquat that entered the bloodstream could and did enter the brain, whether through the blood-brain barrier or parts of the brain not protected by the blood-brain barrier, and that paraquat that entered the brain would and did create a substantial risk of harm to people so exposed.

55. At all relevant times, it was reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON that when Defendants' paraquat products were used in a manner that was intended and directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON, and people were exposed to paraquat as a result, paraquat that entered the nose and nasal passages could and did enter the brain through the olfactory bulb (a part of the brain involved in the sense of smell), which is not protected by the blood-brain

barrier, and that paraquat that entered the olfactory bulb would and did create a substantial risk of harm to people so exposed.

56. At all relevant times, it was reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON that when Defendants' paraquat products were used in a manner that was intended and directed by or reasonably foreseeable to, and was known to or foreseen by, SYNGENTA and CHEVRON, and people were exposed to paraquat products that contained surfactants or had surfactants added to them, the surfactants would and did increase the toxicity of paraquat toxicity to humans by increasing its ability to stay in contact with or penetrate cells and cellular structures, including but not limited to the skin, mucous membranes, and other epithelial and endothelial tissues, including tissues of the mouth, nose and nasal passages, trachea, conducting airways, lungs, gastrointestinal tract, blood-brain barrier, and neurons, and that this would and did increase the already substantial risk of harm to people so exposed.

E. Parkinson's Disease

57. Parkinson's Disease is a progressive neurodegenerative disorder of the brain that affects primarily the motor system, the part of the central nervous system that controls movement.

58. Scientists who study Parkinson's generally agree that fewer than 10% of all Parkinson's cases are caused by inherited genetic mutations alone, and that more than 90% are caused by a combination of environmental factors, genetic susceptibility, and the aging process.

59. The characteristic symptoms of Parkinson's disease are its "primary" motor symptoms: resting tremor (shaking movement when the muscles are relaxed), bradykinesia (slowness in voluntary movement and reflexes), rigidity (stiffness and resistance to passive movement), and postural instability (impaired balance).

60. Parkinson's disease's primary motor symptoms often result in "secondary" motor symptoms such as freezing of gait; shrinking handwriting; mask- like expression; slurred, monotonous, quiet voice; stooped posture; muscle spasms; impaired coordination; difficulty swallowing; and excess saliva and drooling caused by reduced swallowing movements.
61. Non-motor symptoms—such as loss of or altered sense of smell; constipation; low blood pressure on rising to stand; sleep disturbances; and depression—are present in most cases of Parkinson's disease, often for years before any of the primary motor symptoms appear.
62. There is currently no cure for Parkinson's disease; no treatment will stop or reverse its progression, and the treatments most commonly prescribed for its motor symptoms tend to become progressively less effective, and to cause unwelcome side effects, the longer they are used.
63. The selective degeneration and death of dopaminergic neurons (dopamine-producing nerve cells) in a part of the brain called the substantia nigra pars compacta ("SNpc") is one of the primary pathophysiological hallmarks of Parkinson's disease.
64. Dopamine is a neurotransmitter (a chemical messenger that transmits signals from one neuron to another neuron, muscle cell, or gland cell) that is critical to the brain's control of motor function (among other things).
65. The death of dopaminergic neurons in the SNpc decreases the production of dopamine.
66. Once dopaminergic neurons die, they are not replaced; when enough dopaminergic neurons have died, dopamine production falls below the level the brain requires for proper control of motor function, resulting in the motor symptoms of Parkinson's disease.

67. The presence of Lewy bodies (insoluble aggregates of a protein called alpha-synuclein) in many of the remaining dopaminergic neurons in the SNpc is another of the primary pathophysiological hallmarks of Parkinson's disease.

68. Dopaminergic neurons are particularly susceptible to oxidative stress, a disturbance in the normal balance between oxidants present in cells and cells' antioxidant defenses.

69. Scientists who study Parkinson's disease generally agree that oxidative stress is a major factor in—if not the precipitating cause of—the degeneration and death of dopaminergic neurons in the SNpc and the accumulation of Lewy bodies in the remaining dopaminergic neurons that are the primary pathophysiological hallmarks of Parkinson's disease.

F. Paraquat's toxicity

70. Paraquat is highly toxic to both plants and animals. It is highly toxic because it causes and contributes to cause the degeneration and death of living cells in both plants and animals.

71. Paraquat injures and kills plants by creating oxidative stress that causes or contributes to cause the degeneration and death of plant cells.

72. Paraquat injures and kills humans and other animals by creating oxidative stress that causes or contributes to cause the degeneration and death of animal cells.

73. Paraquat creates oxidative stress in the cells of plants and animals because of “redox properties” that are inherent in its chemical composition and structure: it is a strong oxidant, and it readily undergoes “redox cycling” in the presence of molecular oxygen, which is plentiful in living cells.

74. The redox cycling of paraquat in living cells interferes with cellular functions that are necessary to sustain life—photosynthesis in the case of plant cells and cellular respiration in the case of animal cells.

75. The redox cycling of paraquat in living cells creates a “reactive oxygen species” known as superoxide radical, an extremely reactive molecule that can initiate a cascading series of chemical reactions that creates other reactive oxygen species that damage lipids, proteins, and nucleic acids—molecules that are essential components of the structures and functions of living cells.
76. Because the redox cycling of paraquat can repeat indefinitely in the conditions typically present in living cells, a single molecule of paraquat can trigger the production of countless molecules of destructive superoxide radical.
77. Paraquat’s redox properties have been known since at least the 1930s.
78. Paraquat is toxic to the cells of plants and animals because it creates oxidative stress through redox cycling has been known since at least the 1960s.
79. The surfactants with which the concentrates containing paraquat manufactured, distributed, and sold by Defendants, Defendants’ corporate predecessors, and others with whom they acted in concert typically were formulated were likely to increase paraquat’s toxicity to humans by increasing its ability to stay in contact with or penetrate the skin, mucous membranes, and other epithelial tissues, including tissues of the mouth, nose and nasal passages, trachea, and conducting airways, the lungs, and the gastrointestinal tract.
80. The same redox properties that make paraquat toxic to plant cells and other types of animal cells make it toxic to dopaminergic neurons—paraquat is a strong oxidant that interferes with the function of, damages, and ultimately kills dopaminergic neurons by creating oxidative stress through redox cycling.

81. Although Parkinson's is not known to occur naturally in any species other than humans, Parkinson's research is often performed using "animal models," in which scientists artificially produce in laboratory animals conditions that show features of Parkinson's.
82. Paraquat is one of only a handful of toxins that scientists use to produce animal models of Parkinson's.
83. In animal models of Parkinson's, hundreds of studies involving various routes of exposure have found that paraquat creates oxidative stress that results in the degeneration and death of dopaminergic neurons in the SNpc, other pathophysiology consistent with that seen in human Parkinson's, and motor deficits and behavioral changes consistent with those commonly seen in human Parkinson's.
84. Hundreds of in vitro studies have found that paraquat creates oxidative stress that results in the degeneration and death of dopaminergic neurons (and many other types of animal cells).
85. Many epidemiological studies (studies of the patterns and causes of disease in defined populations) have found an association between paraquat exposure and Parkinson's disease, including multiple studies finding a two- to five-fold or greater increase in the risk of Parkinson's disease in populations with occupational exposure to paraquat compared to populations without such exposure.
86. Defendants had knowledge of these studies and the relationship between paraquat exposure and Parkinson's but actively and fraudulently concealed this information from Plaintiff and others.

G. Paraquat regulation

87. The Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA"), 7 U.S.C. § 136 *et seq.*, which regulates the distribution, sale, and use of pesticides within the U.S., requires that

pesticides be registered with the EPA prior to their distribution, sale, or use, except as described by FIFRA. 7 U.S.C. 136a(a).

88. As part of the pesticide registration process, the EPA requires, among other things, a variety of tests to evaluate the potential for exposure to pesticides, toxicity to people and other potential non-target organisms, and other adverse effects on the environment.

89. As a general rule, FIFRA requires registrants—not the EPA—to perform health and safety testing of pesticides, and the EPA generally does not perform such testing.

90. The EPA registers (or re-registers) a pesticide if it believes, based largely on studies and data submitted by the registrant, that:

- a. its composition its composition is such as to warrant the proposed claims for it, 7 U.S.C. § 136a(c)(5)(A);
- b. its labeling and other material required to be submitted comply with the requirements of FIFRA, 7 U.S.C. § 136a(c)(5)(B);
- c. it will perform its intended function without unreasonable adverse effects on the environment, 7 U.S.C. § 136a(c)(5)(C); and
- d. when used in accordance with widespread and commonly recognized practice it will not generally cause unreasonable adverse effects on the environment, 7 U.S.C. § 136a(c)(5)(D).

91. FIFRA defines “unreasonable adverse effects on the environment” as “any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide.” 7 U.S.C. § 136(bb).

92. Under FIFRA, “As long as no cancellation proceedings are in effect registration of a pesticide shall be prima facie evidence that the pesticide, its labeling and packaging comply with the registration provisions of [FIFRA].” 7 U.S.C. § 136a(f)(2).

93. However, FIFRA further provides that “In no event shall registration of an article be construed as a defense for the commission of any offense under [FIFRA].”

7 U.S.C. § 136a(f)(2).

94. FIFRA further provides that “...it shall be unlawful for any person in any State to distribute or sell to any person... any pesticide which is... misbranded.”

7 U.S.C. § 136j(a)(1)(E).

95. A pesticide is misbranded under FIFRA if, among other things:

- a. its labeling bears any statement, design, or graphic representation relative thereto or to its ingredients which is false or misleading in any particular, 7 U.S.C. § 136(q)(1)(A);
- b. the labeling accompanying it does not contain directions for use which are necessary for effecting the purpose for which the product is intended and if complied with, together with any requirements imposed under section 136a(d) of this title, are adequate to protect health and the environment, 7 U.S.C. § 136(q)(1)(F); or
- c. the label does not contain a warning or caution statement which may be necessary and if complied with, together with any requirements imposed under section 136a(d) of this title, is adequate to protect health and the environment,” 7 U.S.C. § 136(q)(1)(G).

96. Plaintiff does not seek in this action to impose on Defendants any labeling or packaging requirement in addition to or different from those required under FIFRA; accordingly, any allegation in this complaint that a Defendant breached a duty to provide adequate directions for the use of paraquat or warnings about paraquat, breached a duty to provide adequate packaging for paraquat, or concealed, suppressed, or omitted to disclose any material fact about paraquat or engaged in any unfair or deceptive practice regarding paraquat, that allegation is intended and should be construed to be consistent with that alleged breach, concealment, suppression, or omission, or unfair or deceptive practice, having rendered the paraquat “misbranded” under FIFRA; however, Plaintiff brings claims and seek relief in this action only under state law, and do not bring any claims or seek any relief in this action under FIFRA.

ALLEGATIONS COMMON TO SPECIFIC CAUSES OF ACTION

A. Product Liability – Design Defect

97. At all relevant times, Defendants, Defendants’ corporate predecessors, and others with whom they acted in concert were engaged in the U.S. paraquat business.

98. At all relevant times, Defendants, Defendants’ corporate predecessors, and others with whom they acted in concert were engaged in the business of designing, manufacturing, distributing, and selling pesticides, and designed, manufactured, distributed, and sold paraquat intending or expecting that it would be sold and used in states across the country, including South Carolina.

99. Plaintiff was exposed to paraquat that Defendants, Defendants’ corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold intending or expecting that it would be sold and used in states across the country, including South Carolina.

100. The paraquat that Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold and to which Plaintiff was exposed was in a defective condition that made it unreasonably dangerous, in that when used in the intended and directed manner or a reasonably foreseeable manner:

- a. it was designed, manufactured, formulated, and packaged such that it was likely to be inhaled, ingested, and absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed; and
- b. when inhaled, ingested, or absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed, it was likely to cause or contribute to cause latent neurological damage that was both permanent and cumulative, and repeated exposures were likely to cause or contribute to cause clinically significant neurodegenerative disease, including Parkinson's, to develop long after exposure.

101. This defective condition existed in the paraquat that Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold and to which Plaintiff was exposed when it left the control of Defendants, Defendants' corporate predecessors, and others with whom they acted in concert and was placed into the stream of commerce.

102. As a result of this defective condition, the paraquat that Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold and to which Plaintiff was exposed either failed to perform in the manner

reasonably to be expected in light of its nature and intended function, or the magnitude of the dangers outweighed its utility.

103. The paraquat that Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold and to which Plaintiff was exposed was used in the intended and directed manner or a reasonably foreseeable manner.

B. Product Liability – Failure to Warn

104. At all times relevant to this claim, Defendants, Defendants' corporate predecessors, and others with whom they acted in concert were engaged in the business of designing, manufacturing, distributing, and selling pesticides, and designed, manufactured, distributed, and sold paraquat intending or expecting that it would be sold and used in states across the country, including South Carolina.

105. Plaintiff was exposed to paraquat that Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold intending or expecting that it would be sold and used.

106. When Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold the paraquat to which Plaintiff was exposed, Defendants, Defendants' corporate predecessors, and others with whom they acted in concert knew or in the exercise of ordinary care should have known that when used in the intended and directed manner or a reasonably foreseeable manner:

- a. it was designed, manufactured, formulated, and packaged such that it was likely to be inhaled, ingested, and absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed; and

- b. when inhaled, ingested, or absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed, it was likely to cause or contribute to cause latent neurological damage that was both permanent and cumulative, and repeated exposures were likely to cause or contribute to cause clinically significant neurodegenerative disease, including Parkinson's, to develop long after exposure.

107. The paraquat that Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold and to which Plaintiff was exposed was in a defective condition that made it unreasonably dangerous when it was used in the intended and directed manner or a reasonably foreseeable manner, in that:

- a. it was not accompanied by directions for use that would have made it unlikely to be inhaled, ingested, and absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed; and
- b. it was not accompanied by a warning that when inhaled, ingested, or absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed, it was likely to cause or contribute to cause latent neurological damage that was both permanent and cumulative, and that repeated exposures were likely to cause or contribute to cause clinically significant neurodegenerative disease, including Parkinson's, to develop long after exposure.

108. This defective condition existed in the paraquat that Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold and to which Plaintiff was exposed when it left the control of Defendants, Defendants' corporate predecessors, and others with whom they acted in concert and was placed into the stream of commerce.

109. As a result of this defective condition, the paraquat that Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold and to which Plaintiff was exposed either failed to perform in the manner reasonably to be expected in light of its nature and intended function, or the magnitude of the dangers outweighed its utility.

110. The paraquat that Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold and to which Plaintiff was exposed was used in the intended and directed manner or a reasonably foreseeable manner.

C. Negligence

111. At all times relevant to this claim, Defendants, Defendants' corporate predecessors, and others with whom they acted in concert were engaged in the business of designing, manufacturing, distributing, and selling pesticides, and designed, manufactured, distributed, and sold paraquat intending or expecting that it would be sold and used in states across the country, including South Carolina.

112. Plaintiff was exposed to paraquat sold and used that Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold intending or expecting that it would be sold and used in states across the country, including South Carolina.

113. The paraquat that Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold and to which Plaintiff was exposed was used in the intended and directed manner or a reasonably foreseeable manner.

114. At all times relevant to this claim, in designing, manufacturing, packaging, labeling, distributing, and selling paraquat, and in acting in concert with others who did so, Defendants, Defendants' corporate predecessors, and others with whom they acted in concert owed a duty to exercise ordinary care for the health and safety of the persons whom it was reasonably foreseeable could be exposed to it, including Plaintiff.

115. When Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, packaged, labeled, distributed, and sold the paraquat to which Plaintiff was exposed, it was reasonably foreseeable, and Defendants, Defendants' corporate predecessors, and others with whom they acted in concert knew or in the exercise of ordinary case should have known, that when paraquat was used in the intended and directed manner or a reasonably foreseeable manner:

- a. it was designed, manufactured, formulated, and packaged such that it was likely to be inhaled, ingested, and absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed; and
- b. when inhaled, ingested, or absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed, it was likely to cause or contribute to cause latent neurological damage that was both permanent and cumulative, and repeated exposures were likely to cause or contribute to cause

clinically significant neurodegenerative disease, including Parkinson's, to develop long after exposure.

116. In breach of the aforementioned duty to Plaintiff, Defendants, Defendants' corporate predecessors, and others with whom they acted in concert negligently:

- a. failed to design, manufacture, formulate, and package paraquat to make it unlikely to be inhaled, ingested, and absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed;
- b. designed, manufactured, and formulated paraquat such that when inhaled, ingested, or absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed, it was likely to cause or contribute to cause latent neurological damage that was both permanent and cumulative, and repeated exposures were likely to cause or contribute to cause clinically significant neurodegenerative disease, including Parkinson's, to develop long after exposure;
- c. failed to perform adequate testing to determine the extent to which exposure to paraquat was likely to occur through inhalation, ingestion, and absorption into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed;
- d. failed to perform adequate testing to determine the extent to which paraquat spray drift was likely to occur, including its propensity to drift, the distance it was likely

- to drift, and the extent to which paraquat spray droplets were likely to enter the bodies of persons spraying it or other persons nearby during or after spraying;
- e. failed to perform adequate testing to determine the extent to which paraquat, when inhaled, ingested, or absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed, was likely to cause or contribute to cause latent neurological damage that was both permanent and cumulative, and the extent to which repeated exposures were likely to cause or contribute to cause clinically significant neurodegenerative disease, including Parkinson's, to develop long after exposure;
 - f. failed to perform adequate testing to determine the extent to which paraquat, when formulated or mixed with surfactants or other pesticides or used along with other pesticides, and inhaled, ingested, or absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed, was likely to cause or contribute to cause latent neurological damage that was both permanent and cumulative, and the extent to which repeated exposures were likely to cause or contribute to cause clinically significant neurodegenerative disease, including Parkinson's, to develop long after exposure;
 - g. failed to direct that paraquat be used in a manner that would have made it unlikely to have been inhaled, ingested, and absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed; and

- h. failed to warn that when inhaled, ingested, or absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed, paraquat was likely to cause or contribute to cause latent neurological damage that was both permanent and cumulative, and repeated exposures were likely to cause or contribute to cause clinically significant neurodegenerative disease, including Parkinson's, to develop long after exposure.

D. Breach of Implied Warranty of Merchantability

117. At all times relevant to this claim, Defendants, Defendants' corporate predecessors, and others with whom they acted in concert were engaged in the business of designing, manufacturing, distributing, and selling paraquat and other restricted-use pesticides and themselves out as having knowledge or skill regarding paraquat and other restricted-use pesticides.

118. At all times relevant to this claim, Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold paraquat intending or expecting that it would be sold and used in states across the country, including South Carolina.

119. Plaintiff was exposed to paraquat sold and used that Defendants, Defendants' corporate predecessors, and others with whom they acted in concert designed, manufactured, distributed, and sold intending or expecting that it would be sold and used in states across the country, including South Carolina.

120. At the time of each sale of paraquat to which Plaintiff was exposed, Defendants, Defendants' corporate predecessors, and others with whom they acted in concert impliedly

warranted that it was of merchantable quality, including that it was fit for the ordinary purposes for which such goods were used.

121. Defendants, Defendants' corporate predecessors, and others with whom they acted in concert breached this warranty regarding each sale of paraquat to which Plaintiff was exposed, in that it was not of merchantable quality because it was not fit for the ordinary purposes for which such goods were used in particular:

- a. it was designed, manufactured, formulated, and packaged such that it was likely to be inhaled, ingested, and absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed; and
- b. when inhaled, ingested, or absorbed into the bodies of persons who used it, who were nearby while it was being used, or who entered fields or orchards where it had been sprayed or areas near where it had been sprayed, it was likely to cause or contribute to cause latent neurological damage that was both permanent and cumulative, and repeated exposures were likely to cause or contribute to cause clinically significant neurodegenerative disease, including Parkinson's, to develop long after exposure.

COUNT I

Strict Liability in Tort – Design Defect **(Defendants Chevron, Syngenta Crop Protection, Syngenta Corp., and Syngenta AG)**

122. Plaintiff incorporates by reference all allegations set forth above in paragraphs 1 to 121 as if fully set forth herein.

123. As a direct and proximate result of the defective and unreasonably dangerous condition of Defendants' paraquat products, Plaintiff developed Parkinson's disease; has suffered severe

and permanent physical pain, mental anguish, and disability, and will continue to do so for the remainder of his life; has suffered the loss of a normal life and will continue to do so for the remainder of his life; has lost income that he otherwise would have earned and will continue to do so for the remainder of his life; and has incurred reasonable expenses for necessary medical treatment and will continue to do so for the remainder of his life.

COUNT II

Strict Liability in Tort – Failure to Warn (Defendants Chevron, Syngenta Crop Protection, Syngenta Corp., and Syngenta AG)

124. Plaintiff incorporates by reference the allegations set forth above in paragraphs 1 to 123 as if fully set forth herein.

125. As a direct and proximate result of the lack of adequate directions for the use of and warnings about the dangers of Defendants' paraquat products, Plaintiff developed Parkinson's disease; has suffered severe and permanent physical pain, mental anguish, and disability, and will continue to do so for the remainder of his life; has suffered the loss of a normal life and will continue to do so for the remainder of his life; has lost income that he otherwise would have earned and will continue to do so for the remainder of his life; and has incurred reasonable expenses for necessary medical treatment and will continue to do so for the remainder of his life.

COUNT III

Negligence (Defendants Chevron, Syngenta Crop Protection, Syngenta Corp., and Syngenta AG)

126. Plaintiff incorporates by reference the allegations set forth above in paragraphs 1 to 125 as if fully set forth herein.

127. As a direct and proximate result of the negligence of Defendant and those with whom it was acting in concert, Plaintiff developed Parkinson's disease; has suffered severe and permanent physical pain, mental anguish, and disability, and will continue to do so for the remainder of his life; has suffered the loss of a normal life and will continue to do so for the remainder of his life; has lost income that he otherwise would have earned and will continue to do so for the remainder of his life; and has incurred reasonable expenses for necessary medical treatment and will continue to do so for the remainder of his life.

COUNT IV

Breach of Implied Warranty **(Defendants Chevron, Syngenta Crop Protection, Syngenta Corp., and Syngenta AG)**

128. Plaintiff incorporates by reference the allegations set forth above in paragraphs 1-127 as if fully set forth herein.

129. As a direct and proximate result of the breaches of the implied warranty of merchantability by Defendant and those with whom it was acting in concert, Plaintiff developed Parkinson's disease; has suffered severe and permanent physical pain, mental anguish, and disability, and will continue to do so for the remainder of his life; has suffered the loss of a normal life and will continue to do so for the remainder of his life; has lost income that he otherwise would have earned and will continue to do so for the remainder of his life; and has incurred reasonable expenses for necessary medical treatment and will continue to do so for the remainder of his life.

PRAYER FOR RELIEF

130. As a result of the foregoing, Plaintiff respectfully requests that this Court enter judgment in the Plaintiff's favor and against Defendants, jointly and severally, for

compensatory damages, costs, pre- and post-judgment interest, and attorneys' fees, severally for punitive damages, and for such further relief to which he may show himself to be entitled.

DEMAND FOR JURY TRIAL OF ALL ISSUES

Plaintiff demands a trial by jury on all issues pursuant to Fed. R. Civ. P. 38(b).

Respectfully submitted,

ANASTOPOULO LAW FIRM LLC

/s/ Jarrett W. Withrow

Roy T. Willey, IV, Bar No. 11664

Eric M. Poulin, Bar No. 11251

Blake G. Abbott, Bar No. 13354

Jarrett W. Withrow, Bar No. 13463

32 Ann Street

Charleston, SC 29403

Phone: (843) 614-8888

Email: eric@akimlawfirm.com

roy@akimlawfirm.com

blake@akimlawfirm.com

jarrett@akimlawfirm.com

ATTORNEYS FOR PLAINTIFF